
LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD
SUPPLEMENTAL ENVIRONMENTAL PROJECT LIST

Guide to Choosing a Supplemental Environmental Project 2005



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

OVER 51 YEARS SERVING COASTAL LOS ANGELES AND VENTURA COUNTIES
RECIPIENT OF THE 2001 ENVIRONMENTAL LEADERSHIP AWARD FROM KEEP CALIFORNIA BEAUTIFUL

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Complaint Assessment Payment Options

Pursuant to California Water Code (CWC) § 13323, executive officers of regional water quality control boards (regional boards) may issue administrative civil liability complaints (ACLs) to any person violating the provisions of the Porter-Cologne Water Quality Control Act (CWC § 13000 et seq.), including dischargers violating waste discharge requirements, discharge prohibitions, enforcement orders, or other orders of the regional boards. The CWC requires that assessments collected through the ACL process be paid into state funds, such as the Cleanup and Abatement Account or the Waste Discharge Permit Fund, based on the type of violation involved. The State Water Resources Control Board (State Board) administers these funds to address important water quality activities throughout the state.

Section IX of the State Board's Water Quality Enforcement Policy allows for a portion of certain penalties assessed by the Regional Boards to be directed towards water quality improvement projects within the region in which the assessments were made. These projects are referred to as *Supplemental Environmental Projects (SEPs)*.

Selection and management of the SEP process is cumbersome and often burdensome on individual violators. In contrast to smaller, independent SEPs, large-scale, more comprehensive SEPs are often successful in reversing the negative impacts on the environment caused by illicit discharges.

The Regional Board facilitates the SEP process by maintaining a list of pre-approved projects that can be funded to offset portions of assessed penalties. The SEP List is available on the Regional Board's website.

<http://www.swrcb.ca/gov/rwqcb4/html/programs/enforcement.html>

Choosing a SEP

To fulfill the requirements of a complaint, the Permittee must choose a SEP from the Regional Board approved SEP List that meets one of more of the following criteria:

1. The proposed project should have a geographic link or nexus with the area where the water quality problem or violation occurred. As an example, a spill in a river might require a plan to improve habitat or fish population in the river in the general area of the spill or in a tributary watershed.
2. The proposed SEP should be related to the specific spill type or violation. A sewage spill could include holding spill prevention workshops for other dischargers in the general area.
3. If specific beneficial uses were affected by the violation, the Discharger should choose a SEP with protection and improvement of those uses as project goals. Water quality monitoring or habitat improvement would be appropriate projects.

Per Section 13323(b), the SEP must not be an action, process or product that is required by any rule or regulation of any entity (e.g., local government, USEPA, California Coastal Commission, etc.) and must not be a direct benefit for either the individual violators, or the State Water Resources Control Board and its nine Regional Boards.

The SEP must go above and beyond the obligation of the individual violators and shall lead to improved water quality and enhanced support of beneficial uses of waters of the State.

Supplemental Environmental Project List



PROJECT	PROPONENT	SEP CATEGORY	COST	AMOUNT FUNDED	Contact
Ventura Coastal Watershed					
Pesticide Free Vegetation Management	City of San Buenaventura	Pollution Prevention	\$50,000.00	\$0.00	Richard Bradley (805) 652-4582 rbradley@ci.ventura.ca.us
Ocean Water Quality Monitoring Program	County of Ventura Environmental Health Division	Watershed Assessment	\$558,662	\$63,000	Mr. Richard Hauge (805) 654-3524
Ventura River Watershed					
Ventura River Watershed Monitoring Program	Santa Barbara Channelkeeper	Watershed Assessment	\$79,249.00	\$19,501.00	Jessie Alstatt (805) 563-3377 x2 Jessie@sbck.org
Ventura County Hillside Erosion Control Ordinance Support ¹	Ventura County Resource Conservation District	Pollution Prevention	\$321,000.00	\$0.00	Patricia Oliver (805) 386-4685
Santa Clara River Watershed					
Bouquet Creek Acquisition and Restoration	City of Santa Clarita	Environmental Restoration	\$104,525.00	\$62,525.00	Heather Merenda 661-284-1413 Hmerenda @santa-clarita.com
Eslmere Canyon - 40 Acres of Wetland Purchase	City of Santa Clarita	Environmental Restoration	\$332,710.00	\$0.00	Heather Merenda 661-284-1413 Hmerenda @santa-clarita.com
Santa Clara River Comprehensive Monitoring Plan	City of Santa Clarita	Watershed Assessment	\$349,900.00	\$0.00	Heather Merenda 661-284-1413 Hmerenda @santa-clarita.com

Malibu Creek Watershed					
Santa Monica Bay and Malibu Watershed GreenMap Phase I	Resource Conservation District of the Santa Monica Mountains	Public Awareness (Education)	\$110,000.00	\$0.00	Melinda Sempill Watts 310-455-1030 x104 mwatts@rcdsmm.org
Living Lightly in Our Watersheds- A Guide for Residents	Resource Conservation District of the Santa Monica Mountains	Public Awareness (Education)	\$20,000.00	\$15,000.00	Melinda Sempill Watts 310-455-1030 x104 mwatts@rcdsmm.org
Malibu Stream Team	Heal the Bay	Watershed Assessment	\$83,536.32	\$0.00	Not available for funding
Santa Monica Bay Watershed Management Area					
Public Involvement and Education Program	Santa Monica Bay Restoration Commission	Public Awareness (Education)	\$160,000.00	148,000.00	Stephanie Katsouleas (213) 576-6641 Skatsouleas@waterboards.ca.gov
Industrial Urban Wildlife Corridor Greening Phase II of Green Map	Santa Monica Bay Audubon Society	Public Awareness (Education)	\$55,000.00	\$0.00	Jean Garrett 310-275-4141 Jeandrum2001@yahoo.com
Kelp Restoration	Santa Monica BayKeeper	Environmental Restoration	\$52,000.00	\$30,000.00	Tom Ford 310-305-9645 x3 captainkelp@smbaykeeper.org
Beach Volunteer Monitoring Program	Santa Monica BayKeeper	Environmental Restoration	\$51,500.00	\$5,250.00	Angie Bera 310-305-9645 x octopus@smbaykeeper.org
Public Awareness Program Dealing with Urban Sources of Debris Project	Algalita Marine Research Foundation	Pollution Prevention; Public Awareness; Watershed Assessment; Non-point Source Program Implementation	\$37,000.00	\$0.00	Marieta Francis 562-598-4889 Marietta@algalita.org
Monitoring Grunion Spawning Populations & Eggs	Pepperdine University	Environmental Auditing	\$95,521.00	\$0.00	Karen Martin 310-506-4808 Karen.martin@pepperdine.edu
Speakers Bureau	Heal the Bay	Public Awareness (Education)	\$49,275.00	\$48,275.00	Meredith McCarthy 310-453-0395 x 122 mmccarthy@healthebay.org
Santa Monica Bay Environmental Observatory	UCLA	Public Awareness (Education)	\$495,000	\$18,000	Keith D. Stolzenbach 310-206-7624 stolzenb@ucla.edu
Boater Education Program	Santa Monica Bay Restoration Foundation	Public Awareness (Education), Pollution Prevention	\$111,700	\$0.00	Stephanie Katsouleas (213) 576-6641 skatsouleas@waterboards.ca.gov

Enhancement of the Southern California Coastal Ocean Observing System for Santa Monica and San Pedro Bays ¹	Marine Environmental Biology Department, University of Southern California	Environmental Auditing, Watershed Assessment	\$754,000	\$0.00	Mr. Burton Jones (213) 740-5765 bjones@usc.edu
Eelgrass Restoration and Monitoring Project at Anacapa Island	Santa Barbara ChannelKeeper	Environmental Restoration, Public Awareness (Education)	\$63,572.00	\$0.00	Jessie Alstatt (805) 563-3377 x2 Jessie@sbck.org
Dominguez Channel Watershed					
Wet Weather Modeling of the Dominguez Channel Integrated Watershed	Southern California Coastal Water Research Project	Environmental Restoration	\$354,338.00	\$239,559.58	Ken Schiff 714-372-9202 kens@sccwrp.org
Los Angeles County Coastal					
Kelp Reforestation and Marine Habitat Project Phase 2	Algalita Marine Research Foundation	Environmental Restoration	\$87,615.00	\$52,500.00	Marieta Francis 562-598-4889 Marietta@algalita.org
Spring Outdoor Program	Cabrillo Marine Museum	Public Awareness	\$45,000.00	\$0.00	John B. Culpepper 310-548-7410 jculpepper@rap.lacity.org
Ocean Outreach Program	Cabrillo Marine Museum	Public Awareness	\$55,000.00	\$0.00	John B. Culpepper 310-548-7410 jculpepper@rap.lacity.org
Los Angeles River Watershed					
Community-Based Public Awareness/ Education and Outreach	California Green Works	Public Awareness (Education)	\$174,000.00	\$78,000.00	Mike Meader 714-523-7292 info@calgreenworks.org
Los Angeles River Integrated Watershed Assessment and Development of a Watershed Management Tool	Southern California Coastal Water Research Project	Environmental Restoration	\$481,656.00	\$58,500.00	Ken Schiff (714) 372-9202 kens@sccwrp.org
Snapshot Bacteria Citizen Monitoring ¹	Southern California Marine Institute	Environmental Auditing	\$79,886.34	\$0.00	Kerry Flaherty 310-519-3172 scmi@csulb.edu
5 Year Seasonal Bacteria Citizen Monitoring ¹	Southern California Marine Institute	Environmental Auditing	\$85,196.45	\$8,420.00	Kerry Flaherty 310-519-3176 kflahert@csulb.edu
Bailey Canyon Wilderness Park Restoration	Sierra Madre Environmental Action Council	Environmental Restoration, Public Awareness	\$30,295.00	\$30,295.00	Ms. Midge Morash 626-355-7606 info@smeac.org





Bailey Canyon Wilderness Park

Multiple Watersheds

The Adopt-A-Beach School Assembly Program	The Malibu Foundation for Environmental Education malibufoundation.org	Public Awareness (Education)	\$705,000.00	\$138,500.00	Michael Klubach 310-652-4324 Michael@klubach.com
20 th Annual Coastal Cleanup Day	Heal the Bay	Environmental Restoration	\$102,158.00	\$98,705.00	Meredith McCarthy 310-453-0395 x 122 mmccarthy@healthebay.org
Publication "Stormwater: Asset not Liability" (Second edition)	Los Angeles and San Gabriel Rivers Watershed Council	Public Awareness (Education)	\$48,400.00	\$0.00	Suzanne Dallman 213-229-9947 Suzanne@lasgrwc.org
Assessment of Endocrine Disruption in SoCal Coastal Fish	Southern California Coastal Water Research Project	Environmental Assessment	\$390,000.00	\$78,985.00	Doris Vidal 714-372-9216 dorisv@sccwrp.org

¹Study incorporates a portion of an adjacent watershed.



Coastal Cleanup Day

Available SEPs

1.

Project: Pesticide Free Vegetation Management Project

Proponent: The City of San Buenaventura

Description: This project entails the purchase of equipment required to begin converting the present pesticide dependent vegetative management program to a management program primarily consisting of a Waipuna Hot Foam System.

The project consists of: the following:

- purchasing the Waipuna Hot Foam System equipment which utilizes hot water and biodegradable foam, immediately breaks down the cellular structure of the plant.
- attempting to eliminate the annual application of over 250 gallons of a glysophate-based herbicide in the City;
- permanently eliminating a pollutant source from the City's storm drain system;
- and demonstrating the feasibility of minimizing pesticide use through the utilization of an alternative vegetation management program.

The project time-line from the purchase of the Waipuna Hot Foam System to city-wide project implementation is 48 months.

2.

Project: Coastal Water Quality Improvement Study

Proponent: The City of San Buenaventura

Description: This study will identify a means to improve coastal water quality presently affecting popular swimming beaches in the City of Ventura. The purpose of this study is to find an effective solution to improve coastal water quality and to prepare preliminary design plans for implementing the solution.

The project consists of:

- Identifying dry weather sources and eliminating them to the maximum extent practicable;
- evaluating low flow end-of-pipe treatment methods including ultraviolet treatment, ozone treatment or diversion to the wastewater treatment plant; and
- evaluating the results of weekly ocean water testing to measure project success.

The project time-line is one year.

3.

Project: Bouquet Creek Acquisition and Restoration

Proponent: City of Santa Clarita

Description: The City will restore a section of Bouquet Creek that flows through Central Park.

The proposed project has three goals:

- preserve the natural riparian habitat existing in Bouquet Creek by developing an ongoing conservation plan;
- enhance water quality through enhanced infiltration, percolation and recharge; and
- develop a public outreach component to educate the community regarding the local hydrological cycle as well as biota existing in Bouquet Creek.

The intention of the conservation plan is to not only preserve the natural habitat present on the existing property but to ensure that the property remains unchanneled. The preservation of the natural riparian habitat will directly enhance two water quality characteristics: 1) enhanced filtration and prevention of downstream transport of pollutants and 2) enhanced percolation and recharge of the Saugus Aquifer. Preservation of the site will reduce pollutants due to urban storm water runoff, sediment, trash and debris downstream into the Santa Clara River. The section of Bouquet Creek being addressed in the proposal is the only section of the creek that remains unchanneled.

The project timeframe is one to two years.

4.

Project: Purchase 40 acres of wetland/riparian areas in Elsmere Canyon potentially threatened by development of a landfill

Proponent: City of Santa Clarita

Description: The City will purchase 40 acres of wetland/riparian areas in Elsmere Canyon. The 40 acres of wetland/riparian areas the City is purchasing is potentially threatened by the development of a landfill. The land is critical for wildlife movement between the San Gabriel Mountains and the Santa Susana Mountains, water supply for wildlife in an arid climate, and preservation of Santa Clara tributaries.

Project goals:

- prevent Elsmere Canyon from being used as a landfill;
- continue to allow this canyon to act as a wildlife habitat;
- help preserve rare and endangered species, migratory habitat and wetlands habitat in the last natural river left in southern California; and
- help provide a stewardship ethic to the community to appreciate open and natural spaces.

The project timeframe is one to two years.

5.

Project: Industrial Urban Wildlife Corridor Greening Project

Proponent: Santa Monica Bay Audubon Society



Description: This project will produce a storm water percolation/habitat restoration kit and GreenMap for the greening of impervious surfaces within a pre-designated Urban Wildlife Corridor for Phase II of the GreenMap Project.

The goals of this project include:

- transforming the large expanses of inhospitable land into jeweled parking orchards (parking lots with planted trees to help reduce the heat effect and swales that carry rain run-off)
- transforming the large expanses of inhospitable land into landscaped storage facilities;
- planting native species of shrubs and wildflowers to assist the repopulation of native birds and butterflies;
- building of animal bridges/tunnels to assist the safe passage of amphibians; and
- having the green corridor serve as a finger that connects the increasingly isolated tracts of natural open space, allowing for cross-pollination.

The documents that will be used to produce the kit and the GreenMap, are designed to help residents of all ages throughout the watersheds expand and implement a vision of a more secure, healthful and sustainable community. The documents will be produced by students and presented to the property business owners. The map will demonstrate to the businesses the variety of ways that storm water has and can be treated on site and that habitat can be created at the same time without loss of functionality.

The project time-line is nine months.

6.

Project: Santa Monica Bay Environmental Observatory

Proponent: University of California, Los Angeles

Description: This project will establish an ongoing coordinated observational and modeling program focused on the water quality of Santa Monica Bay.

The major goals are to:

- measure and forecast oceanographic and water quality conditions in Santa Monica Bay and the nearby regions of the Southern California Bight for the purpose of making possible more effective decisions regarding the management of environmental resources in the bay;
- make the results of the measurement and modeling efforts available to citizens, particularly students of all ages, to promote public awareness of water quality issues and natural variability in the Santa Monica Bay and nearby coastal waters. The development of a GIS database to make it possible for individuals to conduct customized analyses; and
- contribute to the scientific understanding of physical and biogeochemical processes in the coastal waters that are important in determining the fate and transport of pollutants, and natural cycles in Santa Monica Bay.

The proposed project consists of a combination of measurements from different platforms and are combined with computer modeling



- instrumental buoy;
- instrumental shoreline station;
- boat;
- satellite; and
- modeling

The project time-line is five years.



7.

Project: Monitoring Grunion Spawning Populations and Eggs on Sandy Beaches in Northern Los Angeles

Proponent: Pepperdine University, Dr. Kari Martin



Description: This study will be conducted to assess the status of the grunion fish populations by observing spawning runs and observing the eggs during incubation in the sand. These beach habitats are subjected to a variety of runoff regimes, including natural storm water, urban runoff, septic systems, and local water treatment plants, as well as tidal influences and storm swells. No previous research has examined the effects of different runoff regimes on grunion reproduction. Because grunion are uniquely exposed and vulnerable to beach conditions, they may serve as an indicator species for the health of the sandy beach habitat.

The goals of the study are to:

- to monitor the status of grunion populations arriving for spawning runs at four sandy beaches in Santa Monica Bay- Leo Cabrillo State Beach, Paradise Cove, Malibu State (Surfrider) Beach and Las Flores Beach;
- to monitor the amount and extent of eggs deposited by grunion on four sandy beaches after the spawning runs;



- to monitor the development of grunion eggs in situ on sandy beaches over the course of their incubation and in the laboratory, making observations on concurrent runoff regimes;
- to develop information for public awareness and education about the grunion;
- to create and maintain a database for grunion spawning runs at multiple locations;
- to compare grunion reproduction at four different beaches within each year; and
- to compare each beach for grunion reproductive success across three years.

Project timeframe is for three years during peak spawning times, April, May and June. The project timeframe is relevant since three to four years is comparable to the life span of a grunion fish.

8.

Project: Santa Monica Bay and Malibu Creek Watershed GreenMap Phase I

Proponent: Resource Conservation District of the Santa Monica Mountains

Description: The purpose of this project is to create a two-sided Green Map displaying ecological resources of the Malibu Creek Watershed on one side, and the entire Santa Monica Bay on the other. The map will locate and display general ecological features, such as important waterways, polluted or toxic sites, sewage systems, public lands, alternative transportation corridors, wildlife migration routes, etc. The map will also include features and information about kelp reforestation, Malibu Lagoon habitat and restoration opportunities, Heal the Bay's Stream Health Index, non-native invasive plants, dam removal, green businesses, local environmental organizations, wetlands, green architecture, stands of native plants and drainage areas. The map will be posted to various websites.

Long-term goals of the project include:

- reduction of pollution associated with urban runoff;
- reduction of water use;
- identification and expansion of green corridors for wildlife;
- increased numbers of "green businesses";
- reductions in solid waste sent to landfills; and
- increases in bicycle and pedestrian traffic.

Project timeframe is nine-months.

9.

Project: Living Lightly in Our Watersheds- A Guide for Residents

Proponent: Resource Conservation District of the Santa Monica Mountains

Description: The Guide is an educational guide for residents of the Malibu Creek Watershed and unincorporated LA County within the Santa Monica Mountains. The Guide

provides education on storm water protection through waste reduction. The Guide will be mailed to every resident in the Malibu Creek Watershed and is targeted to both rural and urban residents (40,000 people). The Guide describes the watershed concept, and points out ways for every resident to control non-point sources of pollution.

The goals of the project include:

- educating all watershed residents about their contribution to watershed health; and
- giving people the tools to do things differently.

This guide makes it easier for residents to keep trash out of the storm drain system, plant an organic/native garden, buy responsibly, etc.

The Guide will be ready for printing and mailout by June 2002.



10.

Project: Kelp Restoration Project

Proponent: Santa Monica BayKeeper

Description: Kelp forests provide critical habitat and protection for over 800 marine species.

The program's objectives are to expand the BayKeeper's kelp restoration work to three additional sites along the Malibu coastline to the Santa Monica Bay by:

- returning kelp populations to where they once existed
- transplanting fertile drift kelp to act as a natural spore source to the area
- selecting three restoration sites based on historical kelp coverage to date
- monitoring of the sites during all phases of restoration
- augment the Baykeeper's current mariculture facility in order to rear lab-grown kelp plants through the "sub-adult" stage
- designing and constructing a regional mariculture facility located at the Southern California Marine Institute
- maintaining the lab, which will be one of the largest kelp cultivation systems in the country and kelp grown here will be used at Malibu restoration sites.
- assess the biological structure and stability of kelp habitats throughout the Santa Monica Bay by:
 1. reassessing the overall health and community structure of kelp beds in Santa Monica Bay;
 2. conducting subtidal monitoring which will be used to quantify the persistence of kelp populations and their associated assemblages of resident organisms; and

3. utilizing trained volunteer divers to conduct roving fish counts and invertebrate sampling at each site to determine animal diversity and abundance in kelp beds.

Project timeframe is one-year, however the SMBK will continue the project until Kelp Forests are returned to their previous state.



11.

Project: Community-Based Public Awareness/Education and Outreach Program and Watershed Management Facilitation Services Project

Proponent: California Green Works

Description: The project's goals are:

- facilitate the development and implementation of a comprehensive community-based pollution prevention public awareness/education and outreach program
- promote local interest and participation, in particular among youth and local residents
- provide outreach and encourage public involvement among disadvantaged neighborhoods
- residents and youth to promote stewardship and understanding of urban runoff pollution
- foster local interest and participation in local watershed management and clean-up activities
- recruit volunteers and work with local organizations including schools to disseminate information and enhance their knowledge and understanding of their role in improving water quality and environmental protection
- encourage a high level of stakeholder/local resident involvement under the direct leadership of community, business and civic and faith-based organizations throughout the watershed
- increase the availability and dissemination of information regarding water quality by focusing pollution prevention efforts on inner cities youth and residents

Compton Creek flows through disadvantaged and highly polluted neighborhoods; yet residents are deprived of the opportunity for understanding how their individual actions impact the quality of local water bodies. The Compton Creek watershed is listed on the CWA 303(d) list of impaired waters for trash, copper, lead, pH and coliform bacteria.

Project time-frame is approximately three years.





12.

**Project: Public Involvement and Education (PIE)
Program****Proponent: Santa Monica Bay Restoration Project**

Description: The PIE program is a mini-grants program established in 1994 to encourage the development and implementation of community outreach and educational programs focused on water quality, pollution prevention and stewardship of the Santa Monica Bay's natural resources. Through this mini-grants program, the Santa Monica Bay Restoration Project (SMBRP) encourages local communities, organizations, school and businesses to take a leadership role in educating peers and residents about the need to protect and restore the Bay. Target audiences include students grades K-12, residents, industry and small business, city personnel and multi-cultural/environmental justice communities.

PIE utilizes a competitive Request for Proposal (RFP) process to solicit and select a wide variety of innovative projects that raise awareness of Bay-related issues and that utilize a range of educational approaches. During each PIE grant cycle, SMBRP staff and the SMBRP Bay Watershed Council develop a list of the environmental topics they consider educational priorities. Once all proposals are received, a selection committee is convened to evaluate each proposal according to RFP established criteria. Those projects that score the highest and meet the SMBRP's educational goals are selected for funding. Each organization receiving PIE funds then enters into a contract administered by the SMBRP Foundation. The organizations are also expected to provide matching funds for their selected project. Each project typically lasts no longer than 18 months.

The PIE program provides much needed funding to organizations to carry out educational programs that engage and involve the public in protecting and restoring the region's water quality.

Objective: The PIE program uses public education as an innovative mechanism to achieve the pollution reduction and habitat/species protection and public awareness goals of the Basin Plan. The program educates diverse audiences about 1) the many sources of pollution; 2) how these sources reach streams, creeks and the ocean and the impact they have on the environment; and 3) what people and businesses can do to make a difference in reducing pollution.

The PIE program will:

- Provide seed monies to agencies, organizations, businesses, schools and individuals in Los Angeles County to design and implement innovative outreach projects focusing in the water quality issues facing Santa Monica Bay and its watershed;
- Increase community awareness about various sources of pollution that affect water quality;
- Improve people's understanding ways to prevent pollution from reaching and impacting local waterbodies;

- Elicit changes in public behavior, thereby reducing polluting causing habits;
- Help organizations implement successful programs by providing them with additional resources whenever necessary (e.g. data, contacts, technical information, editorial review, etc.);
- Increase the overall number of outreach programs focusing on water quality issues; and
- Create and support projects that can be implemented in other watersheds.

Project time frame is 18 months.

13.

Project: BeachKeeper Volunteer Water Quality Monitoring Program

Proponent: Santa Monica BayKeeper



Description: This program focuses on the Santa Monica Bay Watershed and the Ballona Creek Watershed. The water quality monitoring program will monitor storm drains discharging within the two watersheds in order to (1) measure the levels of contaminants currently found at discharge locations such as storm drains and creeks, (2) provide the appropriate agencies, municipalities, and the public with this data, and (3) conduct further water quality monitoring in order to determine potential trends and/or changes in pollution levels. The water quality data collected by the BeachKeeper program will help assess the levels of pollution from these discharges allowing regulators, municipalities, and others to target the most polluted discharges for improvement and elimination.

The Program seeks to complement the work and supplement the data of the Regional and State Water Boards and various other organizations and agencies that can be utilized in management plans and setting TMDL limits for the Santa Monica Bay. The data from the program can also be used for compliance purposes to ensure regulatory actions are being followed and that TMDLs are being implemented.

Objectives:

- Monitor and collect water samples from over 360 discharge points along Santa Monica Bay 20 discharge points in Ballona Creek.
- Analyze water samples collected for three types of indicator bacteria (total coliform, E. coli, and enterococcus), pH, total dissolved solids, salinity and various heavy metals.
- Identify drains that have the most contaminated discharge.
- Locate sources of point source pollution and develop methods to eliminate them.
- Identify trends in water contamination within Santa Monica Bay and Ballona Creek.
- Supplement state and federal water quality regulatory agency data.



The project time frame is one year.

14.

Project: **Dominguez Channel Integrated Watershed Assessment and development of a Watershed Management Tool**

Proponent: **Southern California Coastal Water Research Project**

Description: The study will develop a dynamic wet weather runoff model for the Dominguez Channel watershed. The objective of developing the wet weather runoff model is two-fold. The first objective is to evaluate what proportion of the cumulative runoff load of various constituents is generated from specific land uses, sub-watersheds, or municipal entities. The second objective is to create a more sophisticated tool for assessing the effectiveness of different management actions.

Dynamic models are time-variable and can incorporate changes in water quality and flow over the course of a single storm event. This enables a more accurate estimate of runoff concentrations and mass emissions. A dynamic wet weather model uses rainfall, watershed hydrography, and runoff water quality data to predict the concentrations and loads of pollutants that runoff at the mouth of a sub-watershed. Both calibration and validation data need to be collected to develop the wet weather model. Dynamic models are being developed for the Santa Monica Bay and Los Angeles River watershed and this project will incorporate information from those studies to the extent possible, thereby increasing efficiency of all watershed modeling efforts.

The Dominguez Channel has numerous water quality concerns throughout its watershed. Water quality problems include nutrients, bacteria, metals and organic constituents amongst others. The goal of this project is to conduct a watershed assessment that will be used to develop a dynamic water quality model for the river. The assessment and dynamic water quality model can then be used by stakeholders to assist in watershed planning activities, such as watershed management plans, total maximum daily loads, 305(b) assessments, 303(d) listings and design and implementation of a watershed monitoring program.

The wet weather model for Dominguez Channel will be built in five steps:

- creation of a project Steering Committee. The Steering Committee will define the specific management questions of the project.
- data collection including physical data
- rainfall and flow data
- water quality
- selection of sampling sites
- sample collection
- development of the dynamic watershed model (Hydraulic Simulation Program-Fortran (HSPF) runoff model). The model will accommodate complex time-variable rainfall-flow



interaction and will enable predictions of varying stream flows and pollutant concentrations/loads during an event

- application of the developed HSPF model. The dynamic water quality modeling will use the pollutant input information to predict in-river water quality. The watershed monitoring surveys will be used for calibration and validation.
- a relational database will be constructed compiling all of the results from the data collection portion of this study. All data will be publicly available and will be downloadable over the Internet. The water quality model will also be publicly available and will incorporate a geographical information system (GIS).

The project time frame is two years.

15.

Project: Los Angeles River Integrated Watershed Assessment and Development of a Watershed Management Tool

Proponent: Southern California Coastal Water Research Project

Description: The study will develop a dynamic wet weather runoff model for the Los Angeles River watershed. The objective of developing the wet weather runoff model is two-fold. The first objective is to evaluate the proportion of the cumulative runoff load of various constituents generated from specific land uses, sub-watersheds, or municipal entities. The second objective for developing a dynamic water quality model is to create a more sophisticated tool for assessing the effectiveness of different management actions.

Dynamic models are time-variable and can incorporate changes in water quality and flow over the course of a single storm event. This enables a more accurate estimate of runoff concentrations and mass emissions. A dynamic wet weather model uses rainfall, watershed hydrography, and runoff water quality data to predict the concentrations and loads of pollutants that runoff at the mouth of a sub-watershed. Both calibration and validation data need to be collected to develop the wet weather model. Dynamic models are being developed for the Santa Monica Bay and Los Angeles River watershed and this project will incorporate information from those studies to the extent possible, thereby increasing efficiency of all watershed modeling efforts.

The Los Angeles River has numerous water quality concerns throughout its watershed. Water quality problems include nutrients, bacteria, metals and organic constituents amongst others. The goal of this project is to conduct a watershed assessment that will be used to develop a dynamic water quality model for the river. The assessment and dynamic water quality model can then be used by stakeholders to assist in watershed planning activities, such as watershed management plans, total maximum daily loads, 305(b) assessments, 303(d) listings and design and implementation of a watershed monitoring program.

The wet weather model for Los Angeles River will be built in five steps:

- creation of a project Steering Committee consisting of stakeholders in the watershed. The Steering Committee will define the specific management questions of the project.



- data collection including physical data, rainfall and flow data, water quality, selection of sampling sites, sample collection
- development of the dynamic watershed model (Hydraulic Simulation Program-Fortran (HSPF) runoff model). The model will accommodate complex time-variable rainfall-flow interaction and will enable predictions of varying stream flows and pollutant concentrations/loads during an event
- application of the developed HSPF model. The dynamic water quality modeling will use the pollutant input information to predict in-river water quality. The watershed monitoring surveys will be used for calibration and validation.
- a relational database will be constructed compiling all of the results from the data collection portion of this study. All data will be publicly available and will be downloadable over the Internet. The water quality model will also be publicly available and will incorporate a geographical information system (GIS).

The project time frame is three years.

16.

Project: Ventura River Watershed Monitoring Program

Proponent: Santa Barbara ChannelKeeper (SBCK)

Description: The SBCK wants to secure funding so that they can continue to organize, lead and educate community volunteers, and continue to collect water quality data at 14 established sites, spanning 16 miles of the Ventura River itself, and 10 miles of tributaries. The monitoring program will be used to establish baseline information on a watershed level; to establish a trained volunteer monitoring base; and to locate previously unidentified point sources of pollution. The SBCK's project will monitor the 14 established sites at monthly intervals and produce quarterly reports. SBCK will provide pollutant load data needed in developing and complying with TMDLs and will lead to the overall restoration and protection of beneficial uses.

Staff and volunteers comprising the Stream Team will monitor the 14 established sites for temperature, dissolved oxygen, turbidity, conductivity/total dissolved solids, pH, bacteria, nutrients and flow.

The information collected will provide baseline information that can be used to monitor major changes being proposed for this river system, including the Matilija Dam removal project. The Matilija Dam is located high up in the Ventura River watershed. Studies are underway to determine the cost and feasibility of removing it.

The project's monitoring sites are located above and below the dam. Once the dam is removed, water and stream quality will change dramatically. The data collected through this monitoring project is expected to provide information for comparison purposes. The data obtained through this monitoring program will also be very useful in the TMDL-development process.

The project time frame is one year.



17.

Project: **Public Awareness Program Dealing with Urban Sources of Debris**

Proponent: **Algalita Marine Research Foundation**

Description: This program focuses on the Santa Monica Bay Watershed and the Ballona Creek Watershed. Land based sources of plastic and trash, especially in urban areas of Southern California, are the most significant source of marine debris in the Los Angeles region's coastal waters and beaches. Public awareness is key to reducing the sources of plastics and trash discharged into waterways.

Plastics, trash and other anthropogenic items accumulate in the Mid-Pacific Gyre reservoir at the rate of six pounds of plastic fragments for every pound of zooplankton. Similar results are emerging at the mouth of major tributaries in the Los Angeles region, such as the San Gabriel River.

Objective: The AMRF will design a public awareness program that will heighten awareness of plastic pollution generated from the inland watershed and its effects on the near shore. The Program will educate the public about the health and environmental consequences of plastic and urban debris.

The public awareness program will:

- Develop specialized presentations and lectures/programs to be used for community group lectures and city, county and state meetings and programs;
- Produce educational videos and curriculum for use by school teachers, environmental groups and other community organizations;
- Develop a promotional program to distribute to public media outlets listing scheduled appearances and presentations; and
- Arrange speaking engagements with various governmental agencies, local organizations and educational institutions.

Project Costs: \$37,000

The project time frame is 15 months.



**18.**

Project: Kelp Reforestation and Marine Habitat Phase 2

Proponent: Algalita Marine Research Foundation (AMRF)

Description: The Kelp Reforestation and Marine Habitat project will be completed in three phases. Phase 1 has been completed and has established a foundation for kelp growth along the Long Beach Breakwater. The project spans an area that is 100 meters long. The first 50 meters have been scoured of sediment. Purple sea urchins have been removed from both 50-meter sections through Phase 1 of the project.

Phase 2 of the project is designed to expand the current Long Beach Breakwater Project to include:

- the expansion of the foundation area with both transplanted and cultured (lab grown) kelp plants;
- the maintenance of sea urchin removal;
- the documentation of growth coverage area; and
- the introduction of a fish monitoring program.

These tasks will aid in the development and enhancement of the marine habitat within the Long Beach Breakwater.

Phase 3 of the project will substantially increase the coverage and thickness of the area by expanding the area of growth another 100 meters using the substrate cleaning process developed in Phase 1. This will enable the project area to become a sustainable habitat and nursery for natural kelp propagation and to serve as the foci for a more intensive effort. Phase 3 will take an additional 12 months to complete.



Objectives: To develop methods of transplanting and out-planting kelp that might improve the reforestation process along the Long Beach Breakwater in an effort to increase the marine habitat within this area.

The breakwater is approximately 2 1/2 miles off shore and receives highly nutrient rich water from the upwelling of a prevailing westerly swell and current. Kelp reforestation is done in just a few steps in 100 meter sections, as follows:

- preparation and scouring of the substrate using a high pressure hose;
- moving of some adult plants into the area to provide natural sporing and shelter for the new marine life that will appear; and
- attachment of cultured plants produced in a laboratory cold room to the substrate in an effort to help supplement the natural sporing and increase the kelp density at a faster rate after the natural recruitment has started.

Project Costs: \$87,615

The project time frame is 12 months.



19.

Project:

**The Adopt-A-Beach
School Assembly
Program**

Proponent:

**The Malibu Foundation
for Environmental
Education**

Description: The comprehensive environmental education program is designed to motivate children to care about the beaches, oceans and neighborhoods. It demonstrates how the beaches and oceans are polluted and or contaminated by highlighting the link between the storm drain connections and the ocean. It shows that clean beaches start with clean neighborhoods. Included in the program are a slide show assembly, lesson plans, teacher training and participation in the annual “Kids” Beach Clean-up in celebration of Ocean Day on May 22.

The location of the project will include all of Los Angeles County Schools with the exception of schools within the City of Los Angeles. The Malibu Foundation is currently under contract with the City of Los Angeles to present the Adopt-A-Beach School Assembly to all the elementary schools within the City. The number of schools inside Los Angeles County and outside of the City of Los Angeles include

about 300 elementary schools, 100 middle schools and 70 high schools, for a total of 470 schools.

Objectives: The Adopt-A-Beach School Assembly Program's goal is to instill an environmental ethic that will help prevent pollution in the future through an outreach program that will compel children to care about their local environment through the following process:

- Providing an entertaining and interactive 45-minute presentation that explains the Los Angeles storm drain system and the connection between the urban environment and beaches and oceans. The presentation illustrates how everyday behavior causes stormwater pollution, how pollution impacts coastal quality and local marine life and it promotes alternative behaviors that can help reduce pollution. The assembly builds on classroom lessons, inspires children to care and motivates them to act;
- Host a Beach Clean-up field trip on May 22 in celebration of Ocean Day to provide the children with a fun, hands-on opportunity to make a difference;
- Host a recycling drive at the schools to redeem aluminum cans and use the proceeds for their transportation to the beach clean-up event; and
- Involve, train and motivate the teachers to increase the potential for program success.

Project Costs: \$705,000

The project time frame is 5-years.

20.

Project: 5-Year Seasonal Bacterial Study

Proponent: Southern California Marine Institute

Description: The amount of total and fecal coliform bacteria in southern California rivers and coastal waters may be dependent on the season and on rainfall. Seasonal environmental auditing of local rivers, harbors and ocean will provide insight into coliform and enterococcal bacteria content.



Objective: The study will complete the following tasks:

- monitor the bacterial quantity in rivers as it goes downstream and enters harbors and local recreation areas;
- monitor each site during the months of November, February, May, August and after the first flush (> 1.5 inches rainfall);
- determine if bacteria concentrations change with location and season;

- provide narrative and numerical bacteriological data for ten sample sites over five discrete times (November, February, May, August and after the first flush) over the course of a year; and
- report this information to the LARWQCB, water quality affiliates, and the local community via the final report of this project.

Project Costs: \$85,196.45

The project time frame is 5-years.

21.

Project: Speakers Bureau

Proponent: Heal the Bay

Description: The Speakers Bureau has been in operation since 1988 and consists of trained volunteers and staff who educate an average of 24,000 people per year in Los Angeles County schools, businesses and community groups about the effects of coastal pollution on human health and on marine life. Approximately seventy-five percent of the audience are students in grades K-12. The presentations are very flexible, catering to the ages, interests and needs of the audience.

Objectives: To increase the total audience and to expand Heal the Bay's capacity to reach ethnically and culturally diverse areas, particularly in Spanish-speaking communities. Specifically the project will:

- train new volunteers and staff twice each year through an intense four-week course preparing speakers to explain coastal pollution issues to a wide range of audiences;
- have newly trained speakers accompany a veteran speaker on a talk;
- develop partnerships with community organizations;
- conduct outreach to schools and community groups in diverse communities;
- conduct training for students eager to help educate their peers;
- encourage and empower community members to take action on local environmental problems; and
- enhance the educational value of the Speakers Bureau through a new set of follow-up activities for teachers to use after each presentation.

Project Costs: \$49,175

The project time frame is 11 months.

22.

Project: Ventura County Hillside Erosion Control Ordinance Support

Proponent: Ventura County Resource Conservation District



Description: The Ventura County Resource Conservation District (VCRCD) has primary responsibility for the planning, review and certifying compliance for the Hillside Erosion Control Ordinance (HECO). The HECO ordinance is a method by which nonpoint source agricultural pollution can be controlled through the proper planning and implementation of Best Management Practices (BMPs) on newly developed agricultural land. The HECO ordinance gives the VCRCD, the Natural Resource Conservation Service and associated County agencies the ability to work with individual agricultural owners/operators on a cooperative, one-on-one basis to reduce erosion and improve water quality. Considering that agriculture is exempt from stormwater quality management regulations, the HECO ordinance is the only tool available to provide an opportunity for reduction and control of erosion and sediment transport associated with development of agricultural lands. The HECO ordinance is a mechanism by which the VCRCD and the County of Ventura can enforce agricultural BMP implementation, specifically focusing on nonpoint source pollution reduction. Current projects awaiting planning must be put on hold until funding becomes available to hire staff to develop the conservation portion of the HECO Plan. The HECO Support project proposes to:

1. advertise for and hire a certified conservation planner;
2. hire a second engineering professional or technician to assist with plan development and implantation, education activities and plan revisions; and
3. modify the HECO ordinance to include owner/operator paid fees associated with planning and implementation to help offset some of the costs of administration of the ordinance.

Objectives: To hire a qualified conservation planner and increase the funding for engineering oversight. Increased funding would provide for staff time to revise the ordinance and take advantage of educational opportunities, as well as help offset the clerical and administrative costs associated with Hillside Erosion Control Ordinance (HECO) plan development.

Project Costs: \$321,000

The project time frame is 3-years.

23.

Proponent: City of Santa Clarita

Project: Santa Clara River Enhancement and Management Plan





Description: Ventura County Watershed Protection District received partial funding in 2001 for a 205(j) proposal which will focus on the water resources portion of the draft Santa Clara River 'Enhancement and Management Plan (SCREMP). The Project includes the collection and review of existing surface water quality data, and the valuation of the beneficial uses of the river. Data gaps will be determined, and a Comprehensive Monitoring Program developed in-house. The goals of this proposed SEP are to consistently monitor both the chemistry and aquatic life of the Santa Clara River, in keeping with the goals of local watershed plans goals and objectives.

The monitoring results will be used to update the water resources report, water quality goals, and the plans to achieve the goals. Responsibilities under the Comprehensive Monitoring Plan will be divided amongst stakeholder groups. In order to standardize the monitoring, the group will develop and print a field manual to ensure monitoring is conducted appropriately and consistently. All stakeholders will be trained in bioassessment monitoring, chemical monitoring, and data quality assurance procedures.

Objectives: The Comprehensive Monitoring Plan will be the fundamental assessment plan for the watershed for all constituents needed on a monthly basis. Implementing this plan will help meet the goals of the SCREMP, and support the RWQCB's efforts in the implementation of TMDLs.

Cost: \$349,900



Timeframe: 12 months

24.

Proponent: Los Angeles and San Gabriel Rivers Watershed Council

Project: "Stormwater: Asset not Liability"

Project: Stormwater Book, 2nd Edition

Proponent: Los Angeles and San Gabriel Rivers Watershed Council

Description: This Project will entail updating and publishing the second edition of the Watershed Council's 1999 publication "Stormwater: Asset not Liability," which has been out of print for more than two years. Rather than a technical "how to" manual, the book is a decision-making guide for a non-technical audience.

Featured subjects include sustainable, multiple-benefit approaches to stormwater management, and the pros and cons of traditional versus sustainable stormwater runoff management. The book will be revised to reflect the current best management practice and will include a comprehensive list of additional resources. The book will address pollution prevention and environmental restoration opportunities associated with sustainable stormwater runoff management approaches.

A draft will be circulated among the Watershed Council Stakeholders for review and comment. Copies will be distributed at Watershed Council Stakeholder meetings and during presentations at other related conferences and meetings. A summary of the book will be published on the watershed Council's website and distributed to our Stakeholder mailing list.

Cost: \$48,400

Timeframe: 18 months

25.

Project: Assessment Of Endocrine Disruption In Southern California Coastal Fish

Proponent: Southern California Coastal Water Research Project



Description: Although Endocrine disruption among fish is an environmental indicator of the impact of contamination on the marine habitat, limited tools are available to

measure endocrine disruption. The goal of the Project is not only to assess endocrine disruption, but also to develop the tools needed to make accurate measurement.

Objectives: Initially, a tool intended for a similar purpose will be adapted to the needs of the project. Should the modified tools fail to quantitatively measure endocrine disruption responses, new tools will be built and the new tools will be integrated into a large-scale monitoring program.

Cost: \$390,000

Timeframe: 3 years

26.

Project: Oxnard Plain Agricultural Outreach Project

Proponent: The City of Oxnard



Description:

The City of Oxnard's goal is the elimination of bacteria from agricultural sources, an unregulated source of sediment and bacteria in the Ormond Wetlands and the beaches of Ventura County, by educating the growers on best management practices.

Cost: \$12,000

Timeframe: 1 year

27.

Project: Snapshot Bacteria Study using Citizen Monitors

Proponent: Southern California Marine Institute

Description: Non-point source runoff can increase the amount of bacteria in surface and coastal waters. Total and fecal coliform bacteria are used to indicate the likelihood of pathogenic bacteria in surface waters. Historically, regional "snapshots" were done with the conventional water quality parameters and, more recently, some testing for total and fecal coliforms and *Enterococcus*.

Southern California Marine Institute's (SCMI) citizen monitors will collect water samples from the Santa Monica Bay watershed, Dominguez Channel, Los Angeles and Long Beach harbors, Los Angeles River watershed, and San Gabriel River watershed. SCMI will complete the bacterial analysis. The "Seasonal Bacterial Study" will provide both narrative and numerical bacteriological data for the Los

Angeles, San Gabriel and Dominguez Channel watersheds in the winter, summer and first wet weather conditions.

Costs: Totals for Each Year

\$45,187.94 (first year)

\$34,698.39 (second year)

Grand Total \$79,886.34

Timeframe: 2 years

28.

Project: Coastal Cleanup Day

Proponent: Heal the Bay

Description: Coastal Cleanup Day, an annual event held in September, focuses on pollution prevention to protect and enhance water quality. Heal the Bay coordinates the event for over 50 locations at beaches and inland sites in Los Angeles County. Tons of trash and recyclables removed from beaches and waterbodies and volunteers are educated about water pollution and the role each of them can play in keeping the beaches clean.



On California Coastal Cleanup Day 2003, Heal the Bay recruited 7,567 volunteers who picked up 96,843 pounds of trash and 4,136 pounds of recyclables at 58 locations. Statewide, Coastal Cleanup Day volunteers picked up a total of 703,174 pounds of litter in three hours.

Cost: \$86,658.00

Timeframe: 1 year

29.

Project: Malibu Creek Stream Team Program - Algae and Nutrient Studies
Proponent: Heal the Bay

Description: The Stream Team will monitor nutrient concentrations, algal cover and biomass, and pre-dawn dissolved oxygen levels in the Malibu Creek watershed to further clarify the relationships among these three parameters in the watershed. The program will provide further data to the LARWQCB and other agencies for resource assessment, restoration prioritization and TMDL development.

Since 1998, the Stream Team program has maintained a corps of 60 highly-trained volunteers and field staff who do two types of monitoring: Stream Walking and Water Chemistry Testing. The Stream Walk component identifies, maps, and photo-documents algal impairment, sediment impairment, discharge points, land uses that impact the stream, invasive exotic species, artificial stream bank modifications, and barriers that prevent the movement of endangered steelhead trout and other aquatic species. Impairments are mapped with a Geographical Positioning System (GPS), transferred to GIS software and analyzed by the science staff at Heal the Bay. Heal the Bay has mapped over 50 miles of the Malibu Creek watershed.

Costs: \$32,662

Timeframe: 1 year



30.

Project: Eelgrass Restoration and Monitoring Program at Anacapa Island
Proponent: Santa Barbara Channelkeeper

Description: Santa Barbara Channelkeeper's "Eelgrass Restoration and Monitoring Program" works to restore historic eelgrass beds at Frenchy's Cove, Anacapa Island, to engage community members in on-the-water restoration work, and to educate community members about the importance of marine habitats.

Seagrass beds form important coastal habitats by supporting complex food webs, filtering out nutrients, and stabilizing sediments. Species diversity in eelgrass beds can be nearly twice as high as on nearby sand habitats. In California, eelgrass beds are nurseries for many common and

commercially important fishes such as giant kelp fish, surfperch, senioritas, olive rockfish, and kelp bass. The eelgrass habitat along the Channel Islands has been impacted by natural events, such as storms and sediment movement, as well as by disturbances from visiting boats dragging and pulling their anchors. Biological threats exist as well. The once extensive eelgrass meadows were severely over-grazed by white urchins after the 1983 El Nino, and have not recovered. Divers from the Channel Islands National Marine Sanctuary, NOAA Fisheries, and the National Park Service will participate in surveying and monitoring dives.

Research has shown that eelgrass seeds can easily be collected and grown under laboratory conditions. Seeds will be collected from a variety of donor beds and grown in portable 25-gallon (Eco-Cart) aquaria. Channelkeeper has also placed Eco-carts in local schools, allowing students to participate in the restoration Project by growing eelgrass for transplanting. Through a partnership with another non-profit marine foundation, class boat trips afford students the opportunity to understand the marine ecosystem, the scope of the Project, and the affect of their contribution.

Cost: \$63,572

Timeframe: 1 year

31.

Project: Multiple Use of Bailey Canyon Park and Bailey Canyon Wilderness Park

Proponent: Sierra Madre Environmental Action Council

- Nature Awareness Program
- Trail Guides
- Park Kiosk Renovation
- Streambed Cleanup
- Earth Day 2004
- Earth Day 2005



Description: Bailey Canyon Wilderness Park is a Wildlife Sanctuary located at the northwestern

border of the City of Sierra Madre. Each spring, the 4th grade students of the

City of Sierra Madre's schools, both public and private, are led on fieldtrips to Bailey Canyon. Trained Docents lead the hikes and teach the importance of watershed protection, floodwater erosion, the flora and fauna of Bailey Canyon Wilderness Park, and the part native plants play in erosion control. Year two of the Project, students from the previous year will brought back to observe how their plants fared during the rainy season.

The Trail Guides provide valuable information to hikers visiting the Park. Streams and trails are noted on the maps included in each Guide, and each Guide contains facts about the Park.



The waterfalls of Bailey Canyon Park attract hikers and nature-lovers from the surrounding communities. The Guides are especially important to public safety. During rainy seasons, it is important to understand stream flow and the impact of rain at higher elevations on the canyons below.

Cost: \$27,595

Timeframe: 2 years

32.

Project: Spring Outdoor Classroom Program

Proponent: Cabrillo Marine Museum

Description: Cabrillo Marine Aquarium's Spring Outdoor Program reached 36,018 children from 111 schools with marine environmental science education last year. The program focused on local sea animals and the inhabitants of the adjacent rocky shore environs. Children were able to hatch the unique grunion fish that spawn at Cabrillo Beach.

The beach alongside the Aquarium becomes one of the biggest "outdoor classrooms by the sea" for nine weeks each spring. Students convene under bright sea-themed banners as volunteer docents provide marine environmental education in small-group interactive settings. The Spring Outdoor Classroom teaches small groups of children how to protect the ocean environment in a fun way. Topics include tidepools, whales, grunion hatching, jelly fish, ecology and how to protect the ocean environment.

Cost: \$45,000

Timeframe: 1 year



34.

Project: Ocean Outreach Program
Proponent: Cabrillo Marine Aquarium

Description: The Ocean Outreach Program is based on the idea that if the school can't come to the Aquarium, Cabrillo Marine Aquarium will go to the school. The main objective is to visit as many classrooms each year as they can fit

into their calendar, with inner-city schools a high priority. Grade-appropriate presentations include specimen dissection, hands-on props, and an opportunity to touch living sea creatures.

Two vans, known as "Crab Cab" and "School Bus" with two staff persons each, go to different schools four days a week (Tuesday through Friday) within 70 miles of the Aquarium. Live marine specimens in the portable touch tanks give students the opportunity to experience marine creatures first hand.

Class topics include fish or squid dissection, tidepools, fish basics, whale or shark topics and art integrated biology lessons.

The Ocean Outreach program reaches children with minimal opportunities with high-impact, interactive marine education programs. With budget reductions impacting almost every Southern California school district, field trips are becoming less possible for many, thereby increasing the demand for programs that come to the school.

Ocean Outreach provides science education that meets the requirements of the State Board of Education for teaching natural sciences, Ocean Outreach offers PreK-12 teachers the option of ten different lessons that emphasize thematic teaching coupled with active learning.

Cost: \$55,000

Timeframe: 1 year

33.

Project: Ocean Water Quality Monitoring Program

Proponent: County of Ventura Environmental Health Division



Description: Under Sections 115880, 11585 and 11591 of the Health and Safety Code, the County of Ventura (County) is required to conduct bacteriological monitoring of ocean water along 42 miles of Ventura County coastline from April through October. This SEP would provide funds for bacteriological monitoring during the non-mandated months (November through March) for fiscal years 2004-2005 and 2005-2006.

The ocean water quality monitoring program consists of weekly bacteriological sampling at 53 ocean beach locations. The primary purpose of the water quality

sampling is to assess and provide the public with timely and accurate beach water quality information. This information is disseminated through the County's web site, a telephone hotline, press releases, and posting of warning signs on beaches that failed the state standards for bacteria.

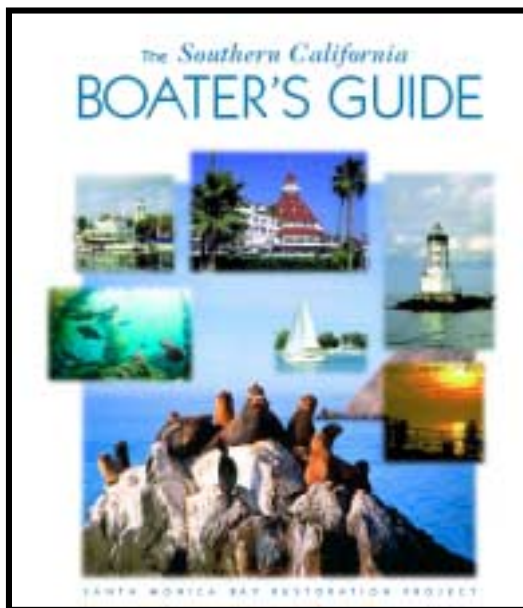
Cost: \$558,662

Timeframe: 2 years

34.

Project: Boater Education Program

Proponent: Santa Monica Bay Restoration Foundation



Description: The Boater Education Program's (Program) primary goal is controlling the release of recreational boating generated pollutants such as used oil, hazardous-waste, oily bilge, do- it-yourself maintenance supplies, plastics, gray water, and sewage through public education. The Program promotes awareness through publication of the Southern California Boaters Guide, the Changing Tide quarterly newspaper, quarterly California Clean Boating Network meetings, and participation in local boating events. The Program also conducts a bilge pad exchange program where boaters can exchange oily bilge pads for new bilge pads at no cost, and the used oil container recycling program where boaters drop off used motor oil bottles for recycling.

The Program's staff provides technical assistance to the Clean Marina Recognition Program that honors marinas where regulatory requirements for pollution prevention are voluntarily exceeded. Program staff publish quarterly fact sheets with pollution prevention strategies.

The Boater Education Program is a member of the California Clean Boating Network, a collaboration between government, environmental, business, boating, and academic organizations that work to decrease boating related pollution. Boater Education Program staff facilitate and coordinate quarterly meetings of the California Clean Boating Network.

Cost: \$98,800



35.

Project: Enhancement of the Southern California Coastal Ocean Observing System for Santa Monica and San Pedro Bays

Proponent: Marine Environmental Biology Department, University of Southern California

Description: The Southern California Coastal Ocean Observing System (SCCOOS) consists of two components. SCCOOS provides a network of continuous ocean observations in the Southern California Bight using autonomous vehicles that map water quality variables in the coastal ocean. SCCOOS also can generate surface current maps using high frequency radar.

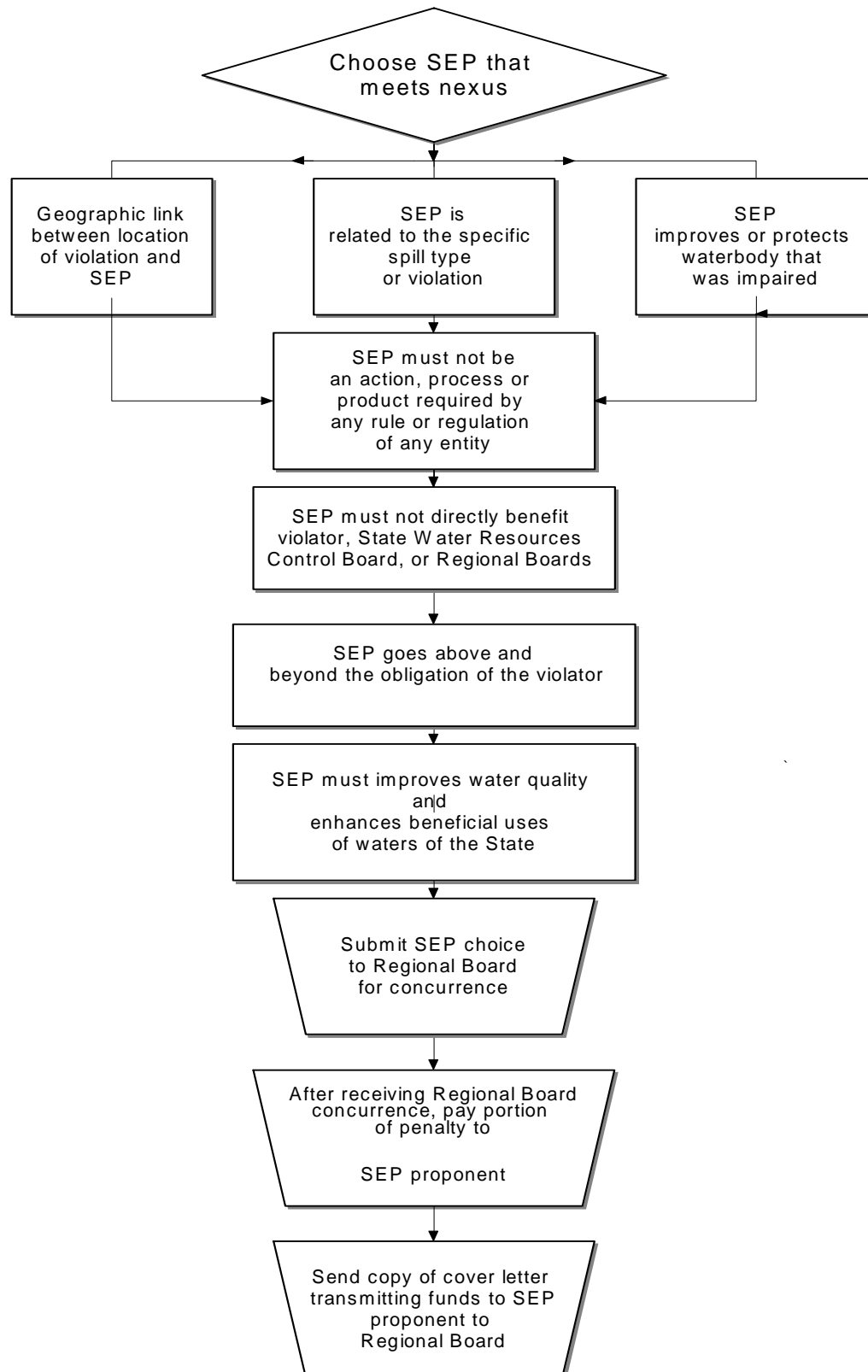
Gliders track and monitor stormwater runoff events, sewage outfall plumes, harmful algal blooms, and other similar water quality issues. The data gathered is used to provide three-dimensional maps of water quality properties that are made available to the public through the SCCOOS web site in near real-time. The data from the gliders can be used to investigate the source of contamination and predict the fate of contaminants that impair the beneficial uses of coastal ocean waters. The glider water quality mapping can also be used to better understand and predict the fate and transport of stormwater plumes, and if stormwater plumes lead to harmful algal blooms.

Cost: \$754,000





SEP Steps



SEP Contact List

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